

Camas Analysis Area Late-Successional Reserve  
Environmental Assessment

Myrtlewood Resource Area

Coos Bay District

EA Number OR128-99-23

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**Analysis File - available at the Coos Bay District Office**

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## **I. PURPOSE AND NEED FOR ACTION**

The purpose of conducting density management thinning (DMT) within the Late-Successional Reserves (LSR) is to enhance structural diversity by maintaining or improving tree growth rates and vigor, manipulating species composition, and modifying spatial arrangement. These treatments would enhance structural diversity through density management and begin to restore some late-successional habitat lost through previous management activities. LSRs are intended to establish and/or maintain a network of late-successional forests that provide habitat which supports viable populations of associated species and ensures that native species diversity will be conserved. LSRs are comprised of both young, managed stands that are less than 80 years old and unmanaged old-growth stands. Based on research presented in Tappeiner et al. (1997), the proposed density management treatment units and associated Riparian Reserves are not on a trajectory that is conducive to development of late-successional/old-growth forest habitat. The conditions found are the result of a combination of past management activities (harvest, site preparation burning, planting, precommercial thinning, and fertilization) and probably not within the range of natural variability (Spies & Franklin 1991).

The Bureau of Land Management (BLM) proposes to implement forest density management activities in the Camas Analysis Area. The analysis area is approximately 60 miles southeast of Coos Bay. The analysis area is primarily within the Camas subwatershed which lies within the East Fork Coquille Analytical (fifth field) Watershed. The total analysis area is 9,014 acres in size and lies within LSR #261. BLM manages 54% of the analysis area; the remainder is privately owned. The proposed treatments are located in T28S-R9W and T29S-R9W; Willamette Meridian.

The following goals have been established for LSRs:

- Goals:
1. Protect and enhance conditions of late-successional and old-growth forest ecosystems.
  2. Create and maintain biological diversity associated with native species and ecosystems.

The proposed action would focus primarily on younger stands (30 to 50 years old) identified for density management treatment by the East Fork Coquille Watershed Analysis. Stands less than 30 years of age have either previously been treated (precommercial thinning), are at such low stand density that treatments are not needed, or are too young for any treatments at this time. The objective of the treatments would be to enhance the development of late-successional conditions while making the residual stands more resilient to disturbance such as wind, fire, and insects. Density management within portions of the Riparian Reserves associated with the proposed treatment areas would also be undertaken at this time in order to establish a trajectory that is likely to attain the desired conditions that meet the Aquatic Conservation Strategy (ACS) objectives.

The proposed action would treat 784 acres of forest stands with density management thinning. This includes treating portions of Riparian Reserves (255 acres) associated with units to be treated. No-treatment buffers would be applied to streams within or adjacent to thinning units as needed to maintain bank/slope stability and shade. Density management thinning would remove a portion of the stands to provide room for the remaining trees to maintain or increase diameter growth. Trees cut but surplus to habitat needs would be removed for commercial use.

(see Appendix 5). Treatments would be accomplished using ground-based, skyline cable, and helicopter yarding systems. The proposed projects would include renovation/improvement of 2.3 miles of existing roads (all of which would be decommissioned after use) and decommissioning/closing an additional 2.4 miles of existing roads. The proposed projects could be accomplished by timber sale contracts sold in Fiscal Year (FY) 2002 and FY 2003, and/or services contracts, depending on funding.

The South Coast - Northern Klamath Late-Successional Reserve Assessment (LSRA) recommends that at least 10% of the resultant stand would remain untreated when performing density management thinning. No-treatment areas are to provide and retain specified processes and conditions (LSRA, page 82). Areas identified by the IDT to remain unthinned vary in characteristics and therefore contribute differently to the processes and conditions to be retained. Some areas already have a stand composition (species, density, and size) that is desirable. These areas currently exhibit some processes and conditions of late-successional stands and were left unthinned at this time. It may be necessary to consider future treatments in these areas to insure that they remain on this desirable trajectory.

Forest treatments would occur in Late-Successional Reserves as defined in the *Coos Bay District Final Proposed Resource Management Plan*, 1994 and the interagency *FSEIS Record of Decision* (ROD), 1994; respectively. All treatments would be in compliance with the *South Coast - Northern Klamath Late-Successional Reserve Assessment* (LSRA), 1998.

This EA is tiered to the *Final - Coos Bay District Proposed Resource Management Plan*, (FRMP, BLM, 1994), which is in conformance with the *Final Supplemental Environmental Impact Statement on Management of Habitat for the Late Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl* and its Record of Decision (ROD), (Northwest Forest Plan, Interagency, 1994) and the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standard and Guidelines* (Interagency, 2001).

This EA incorporates by reference the *South Coast - Northern Klamath Late-Successional Reserve Assessment* (1998), the *Port-Orford-Cedar Management Guidelines* (BLM 1994)(detailed evaluation is contained in Section L of the Analysis File); the *Western Oregon Program - Management of Competing Vegetation*, (FEIS, BLM 1989); the *Western Oregon Transportation Management Plan* (BLM 1996); and the *East Fork Coquille Watershed Analysis* (BLM 2000). Actions described in this EA are in conformance with the Aquatic Conservation Strategy (ACS) Objectives listed on page B-11 and the Standards and Guidelines for Riparian Reserves on pages C-31 to C-37 of the Northwest Forest Plan. A detailed analysis of the consistency of the action alternatives with the ACS is contained in Section K of the Analysis File. These documents are available for review at the Coos Bay District Office of the BLM, North Bend, Oregon.

The actions proposed in this EA are consistent with Oregon's Coastal Salmon Restoration Initiative (CSRI), the Coquille Watershed Association Action Plan (CWAAP), the U.S. Fish and Wildlife Service's June 12, 2000 Biological Opinion on density management thinning in the Camas Analysis Area Late Successional Reserve (1-15-00-I-352), and the National Marine Fisheries Service's March 18, 1997 Biological Opinion and Conference Opinion on activities covered in the Coos Bay District's FRMP.

The Analysis File contains additional information used by the interdisciplinary team (IDT) to analyze impacts and alternatives and is hereby incorporated by reference.

### Scoping

The scoping process identified the agency and public concerns relating to the proposed projects and defined the issues and alternatives that would be examined in detail in the EA. The general public was informed of the planned EA through letters to those on the Resource Area's mailing list, those receiving the Coos Bay *Planning Update*, and through the District's Internet site. The scoping letter, mailing list, and public responses are in Section A of the Analysis File.

Scoping by the IDT identified two major issues that were used to develop and analyze the action alternatives.

### Identified Issues

#### 1. Development of Late-Successional Characteristics

Key Indicators: Growth Rate Acceleration  
Understory Development  
Stand Composition (Heterogeneity, species diversity, & structures)

#### 2. Roads

Key Indicators: Road Density  
Impacts to Wildlife

### Management Objectives (for this EA)

- Conduct density management thinning (DMT) to maintain or improve tree growth rates and vigor, manipulate species composition, and modify spatial arrangement.
- Where necessary, recruit snags and coarse woody debris (CWD).
- Set the stage for understory regeneration, and recruiting snags and CWD.
- Conduct DMT in Riparian Reserves to accelerate growth of trees which would later provide large-diameter snags and down logs, promote the development of understory vegetation, maintain good crown ratios, and manage species composition.
- Maintain or enhance resource values within Riparian Reserves to meet the ACS objectives.

- Manage BLM-controlled road systems through various types of road closures and decommissioning to maintain, restore, or improve wildlife habitats, water quality, and hydrologic function. Reduce the open road density in accordance with the Transportation Management Objectives (TMO) on BLM-managed lands in the proposed action area.
- Limit spread of Port-Orford-cedar (POC) root rot disease (*Phytophthora lateralis* - PL) in the high risk areas (adjacent to roads and in riparian areas) and maintain POC populations in low risk areas.

Issues Identified, Analyzed, but Not Used to Develop Action Alternatives:

The following issues were identified during the EA process. Analysis of these issues did not suggest different alternatives, nor would they influence the decision. Therefore, they were not discussed further in this EA. The reasons that these issues merit exclusion from the body of the EA is included in Section B of the Analysis File.

- Peak Flow

- Survey and Manage Species

Alternatives and Units Considered but Not Carried Forward:

Alternative to treat younger stands in the analysis area:

Table 21 in the South Coast - Northern Klamath Late-Successional Reserve Assessment (LSRA, page 68) shows general priorities to be considered when treating stands in the LSR. High Priority stands are those less than 30-years of age. Treatments would manage the stand density to accelerate the growth of trees by reducing the effects of competition. Primarily, this would be accomplished through precommercial thinnings (PCT). The analysis area contains 1,022 acres of stands that are less than 30 years of age, of which approximately 70% have already been pre-commercially thinned. The remainder is either too young for treatment, has low stand density levels not requiring treatment, or is planned for PCT in the near future (62 acres). Therefore, in the analysis area, most all of the stands in this priority have already been, or are planned to be, treated.

Alternative to treat stands and leave the thinned trees on site:

An insect infestation risk assessment for the project area was completed by Dr. Donald Goheen, Entomologist/Plant Pathologist (see Attachment 3 in Appendix 5). The purpose of the trip was to consult with BLM managers about possible insect implications of cutting substantial numbers of Douglas-firs and leaving them on the ground. His conclusion was leaving cut trees on site in place would create perfect conditions for Douglas-fir beetle population to increase by providing large numbers of down trees of the proper size classes for brood population. There are Douglas-fir beetles in the area that potentially would infest the down trees and produce brood. Small endemic populations of these beetles survive in greatly weakened tress, especially in root disease centers such as laminated root rot which is found throughout the area. Beetles emerging from the down trees could be expected to kill substantial numbers of leave trees, and could kill trees in adjacent old-growth stands and on neighboring private

properties as well. Mortality patterns would be unpredictable. By killing the largest Douglas-firs and Douglas-firs in groups, desired stand structure and required crown closure would be negatively impacted (Goheen, 2000).

Thinning dense stands can make them less susceptible to infestation. However, if large amounts of down wood greater than 8 inches in diameter (20 cm) is left on site following thinning, beetles will have abundant breeding sites and population may increase to damaging levels (Ross, 1997). Douglas-fir beetle infestation of green trees occurs when brood has emerged from a fairly substantial number of down trees. Based on past experience, the threshold appears to be at least 4 down Douglas-firs  $\geq$  10 inches diameter per acre (Goheen, 2000). The more down hosts there are and the larger the size of the down trees, the greater the likelihood that emerging beetles will infest green trees and the larger the number of trees that will likely be infested. A treatment leaving 25 - 230 trees/acre on the ground would result in epidemic population growth of Douglas-fir bark beetles that would attack and kill standing green Douglas-fir trees. The Douglas-fir bark beetles often show a preference for the largest Douglas-firs in a stand and also often cause concentrated mortality, killing all of the trees in patches that vary in size from  $\frac{1}{4}$  to 2 acres. Most commonly, beetle-caused mortality of standing Douglas-firs will be concentrated fairly near the downed trees initially attacked by the beetles. However, Douglas-fir beetles are strong fliers, and in a certain percentage of cases (10 to 20 percent), they infest trees one to 5 miles away from where they emerge (Goheen, 2000).

A fire risk assessment was also completed for the alternative of leaving thinned material on site. The results of this assessment determined that leaving thinned trees on site would rate out as a High Fuel Hazard. If ignition occurred in this fuel loading, it would likely create a stand replacement fire. The cured fuel load would also be completely impassable to firefighters, hampering suppression efforts without the use of large mechanized equipment. Detailed information dealing with fire and insect risks can be found in Appendix 5.

The design features include leaving one down tree per acre in all units and to creating one snag per acre in the north facing units. The design features for snags and down logs, along with the retention of existing components, meet the objectives set in the LSRA. The remainder of the thinned trees would be surplus to habitat needs. Detailed information can be found in Appendix 5.

Therefore, based on the issues for fire and insect risk, it was determined that removal of the thinned trees (except those left for down logs) would best promote the desired forest structure while minimizing risk to the stands in the LSR. Due to the issues raised concerning fire and insect risks, leaving thinned material on site would not be a viable alternative. However, the fire and insect risk assessments does support the action alternatives addressed in this EA.

#### Alternative to build new roads to access units for treatments:

An alternative to build new roads to access units (or portions thereof) for skyline cable yarding was considered. However, the IDT decided to develop action alternatives that did not include new road construction in order to avoid potential negative short-term impacts to water quality and wildlife. To meet this intent, some units (or portions) incorporated ground-based or helicopter yarding systems and some potential areas were eliminated from consideration (detailed information can be found in Section C of the Analysis File).



Other units considered for treatment:

The East Fork Coquille Watershed Analysis identified approximately 1,060 acres that could be treated by density management thinning within the LSR land-use allocation in the Camas Analysis Area. Potential treatment units consisted of stands 30-50 years of age that appeared to be of a composition and density that would benefit from treatment. Stand exams were conducted in these units, as well as additional areas that were of the same age. This information was used by the Interdisciplinary Team to finalize the action alternative treatment areas (units). Most EA units had areas adjacent to them that were currently at a stand density and composition that the Team considered already on a trajectory toward developing late-successional characteristics. These areas were dropped from consideration for treatments at this time. Detailed information on units not included in the action alternatives can be found in Section C of the Analysis File.

# Vicinity Map

## Camas EA Analysis Area

### Myrtlewood Resource Area Coos Bay District BLM

